

CLAIMS

What is claimed is:

1. A sealing arrangement for sealing a machine element with a sealing ring and leak-detection means, comprising:

a sensor for detecting a leak; and

a depot for picking up the leak, said depot being monitored by said sensor, wherein said depot consists of an absorbent and/or swellable material; and

said depot is arranged so that a delayed leak detection by the sensor is possible.

2. The sealing arrangement according to Claim 1, wherein said depot is formed of an absorbent ring-shaped disk.

3. The sealing arrangement according to Claim 1, wherein the depot is centered in the leak-detection means by a surrounding ring-shaped bulge.

4. The sealing arrangement according to Claim 1, wherein the depot comprises a nonwoven material.

5. The sealing arrangement according to Claim 1, wherein said sensor is fastened on a carrier plate.

6. The sealing arrangement according to Claim 5, wherein said depot and/or said carrier plate with said sensor are disposed in a supporting ring.

7. The sealing arrangement according to Claim 6, wherein said carrier plate is sustained by a groove located peripherally on a side of an axial leg of said supporting ring facing the machine element.

8. The sealing arrangement according to Claim 1, wherein said sensor is positioned at a distance from the depot by a spacer.

9. The sealing arrangement according to Claim 6, wherein said sealing ring and said supporting ring form an intermediate space for leak pickup.

10. The sealing arrangement according to Claim 9, wherein an annular element comprising an absorbent material is disposed in said intermediate space.

11. The sealing arrangement according to Claim 1, wherein an annular disk is provided on a side of said sealing ring that faces its surroundings, said disk comprising an absorbent material and being positioned ahead of said leak-detection means.

12. The sealing arrangement according to Claim 11, wherein said disk consists of a nonwoven material.

13. The sealing arrangement according to Claim 1, wherein said sealing ring is inserted into a supporting ring.

14. The sealing arrangement according to Claim 1, wherein, with the aid of a supporting ring, said leak-detection means are disposed in a recess located on an outer periphery of said sealing ring.

15. The sealing arrangement according to Claim 1, further comprising an elastomeric layer that has at least one sealing lip that rests on the machine element in a sealing manner or is disposed at a small distance therefrom.

16. The sealing arrangement according to Claim 1, wherein said sensor detects optical changes of said depot.

17. The sealing arrangement according to Claim 16, wherein said sensor consists of an reflected infrared light barrier.

18. The sealing arrangement according to Claim 1, wherein said sensor consists of a mechanical system detecting volume changes of said depot.

19. The sealing arrangement according to Claim 1, wherein said sensor consists of a condenser; and

said depot acts as a dielectric.

20. The sealing arrangement according to Claim 1, wherein a signal transmission from said sensor occurs without a cable.

21. The sealing arrangement according to Claim 1, wherein a signal transmission from said sensor occurs through a round cable or a flat strip cable.

22. The sealing arrangement according to Claim 21, wherein said cable passes through a cable passage lined with an elastomer.

23. The sealing arrangement according to Claim 22, wherein said elastomer of said cable passage is connected to said cable by adhesion.

24. The sealing arrangement according to Claim 1, further comprising a supporting ring that is provided with, on an outer periphery of its axial leg, a layer of elastomer.